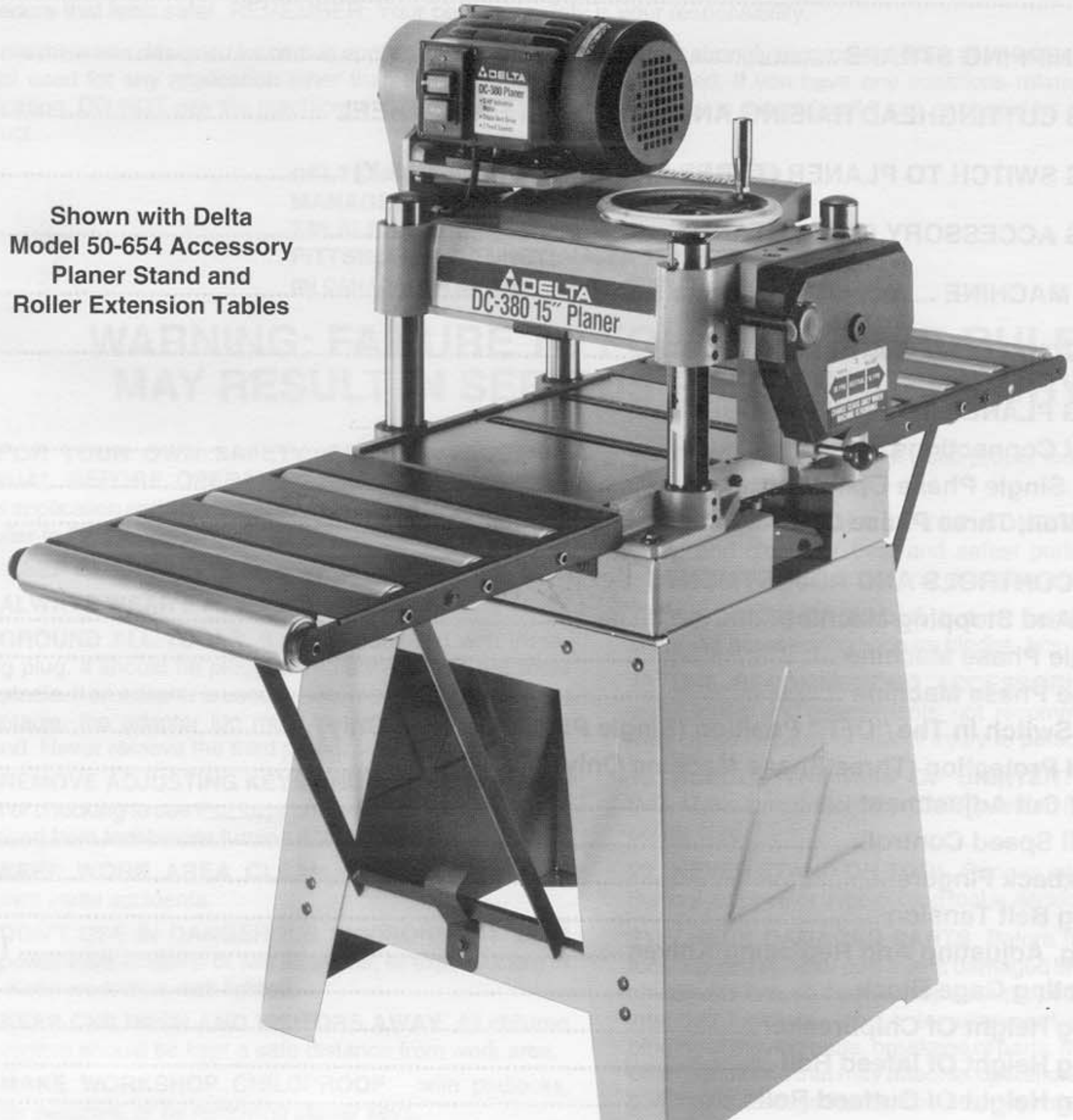
DC-380 15" Planer

(Model 22-680, Single Phase)
(Model 22-681, Three Phase)

INSTRUCTION MANUAL

Shown with Delta Model 50-654 Accessory Planer Stand and Roller Extension Tables



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DELTA

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SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possiblity of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. REMEMBER: Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

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WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL**. Learn the tool's application and limitations as well as the specific hazards peculiar to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **ALWAYS WEAR EYE PROTECTION**.
4. **GROUND ALL TOOLS**. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
5. **REMOVE ADJUSTING KEYS AND WRENCHES**. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on."
6. **KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
7. **DON'T USE IN DANGEROUS ENVIRONMENT**. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.
8. **KEEP CHILDREN AND VISITORS AWAY**. All children and visitors should be kept a safe distance from work area.
9. **MAKE WORKSHOP CHILDPROOF** - with padlocks, master switches, or by removing starter keys.
10. **DON'T FORCE TOOL**. It will do the job better and be safer at the rate for which it was designed.
11. **USE RIGHT TOOL**. Don't force tool or attachment to do a job for which it was not designed.
12. **WEAR PROPER APPAREL**. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
13. **ALWAYS USE SAFETY GLASSES**. Wear safety glasses (must comply with ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.
14. **SECURE WORK**. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
15. **DON'T OVERREACH**. Keep proper footing and balance at all times.
16. **MAINTAIN TOOLS IN TOP CONDITION**. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
17. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
18. **USE RECOMMENDED ACCESSORIES**. The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.
19. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
20. **NEVER STAND ON TOOL**. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
21. **CHECK DAMAGED PARTS**. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
22. **DIRECTION OF FEED**. Feed work into a blade or cuttter against the direction of rotation of the blade or cutter only.
23. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF**. Don't leave tool until it comes to a complete stop.
24. **DRUGS, ALCOHOL, MEDICATION**. Do not operate tool while under the influence of drugs, alcohol or any medication.
25. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.
26. **WARNING:** The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR PLANERS

1. **IF YOU ARE NOT** thoroughly familiar with the operation of planers, obtain advice from your supervisor, instructor or other qualified person.

2. **MAKE SURE** wiring codes and recommended electrical connection instructions are followed, and that the machine is properly grounded.

3. **MAKE** all adjustments with the power **"OFF."**

4. **DISCONNECT** machine from power source when making repairs.

5. **KEEP** knives sharp and free of all rust and pitch.

6. **NEVER** perform any planing operation with the top cover or guard removed.

7. **KEEP** fingers and hands away from cutting area.

8. **KEEP** fingers and hands away from chip exhaust opening. The cutterhead rotates at extremely high speeds.

9. **NEVER** feed the work into the outfeed end of machine.

10. **ADEQUATELY** support the workpiece at all times.

11. **NEVER** start the machine with the workpiece in contact with the cutterhead.

12. **CHECK MATERIAL** for loose knots and other defects before planing.

13. **MAKE SURE** the workpiece is free from nails and other foreign objects which could cause injury or damage to the blades.

14. **MAKE SURE** the blades are properly secured in the cutterhead, as explained in the instruction manual, before turning on power.

15. **ALWAYS** allow the cutterhead to reach full speed before using.

16. **REMOVE SHAVINGS** only with the power **"OFF."**

17. **KEEP HANDS** away from the top surface of the board near the feed rolls

18. **WHEN PLANING** bowed stock, always turn the concave side of the stock toward the table and cut with the grain.

19. **IF DURING OPERATION** there is any tendency for the machine to tip over, slide or walk on the supporting surface, **MAKE CERTAIN TOOL IS SECURED TO THE SUPPORTING SURFACE**.

20. **DO NOT** perform planing operations on material shorter than 12 inches, or thinner than 3/16 inch.

21. **DISCONNECT** machine from power source when making repairs.

22. **BEFORE LEAVING** the machine, make sure the work area is clean.

23. **SHOULD** any part of your machine be missing, damaged or fail in any way, or any electrical component fail to perform properly, shut off switch and remove plug from power supply outlet. Replace missing, damaged or failed parts before resuming operation.

24. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201, in the Accident Prevention Manual for Industrial Operation and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standard Institute ANSI 01.1 Safety Requirements for Woodworking Machinery and the U.S. Department of Labor OSHA 1910.213 regulations.

UNPACKING

Your new 15" Planer is shipped complete in one crate mounted to a shipping skid. Remove the wooden crate from around the machine and remove the two screws that fasten the machine to the shipping skid. Remove the machine and all loose items from the shipping skid. **IMPORTANT:** The machine is very heavy. Care must be taken when removing the machine from the skid.

Figure 2 illustrates the machine removed from the crate and shipping skid.

Figure 3 illustrates the loose items supplied with your machine.

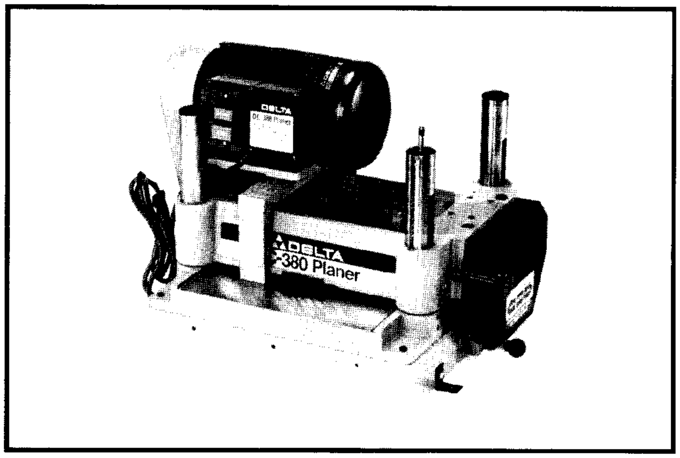

Fig. 2

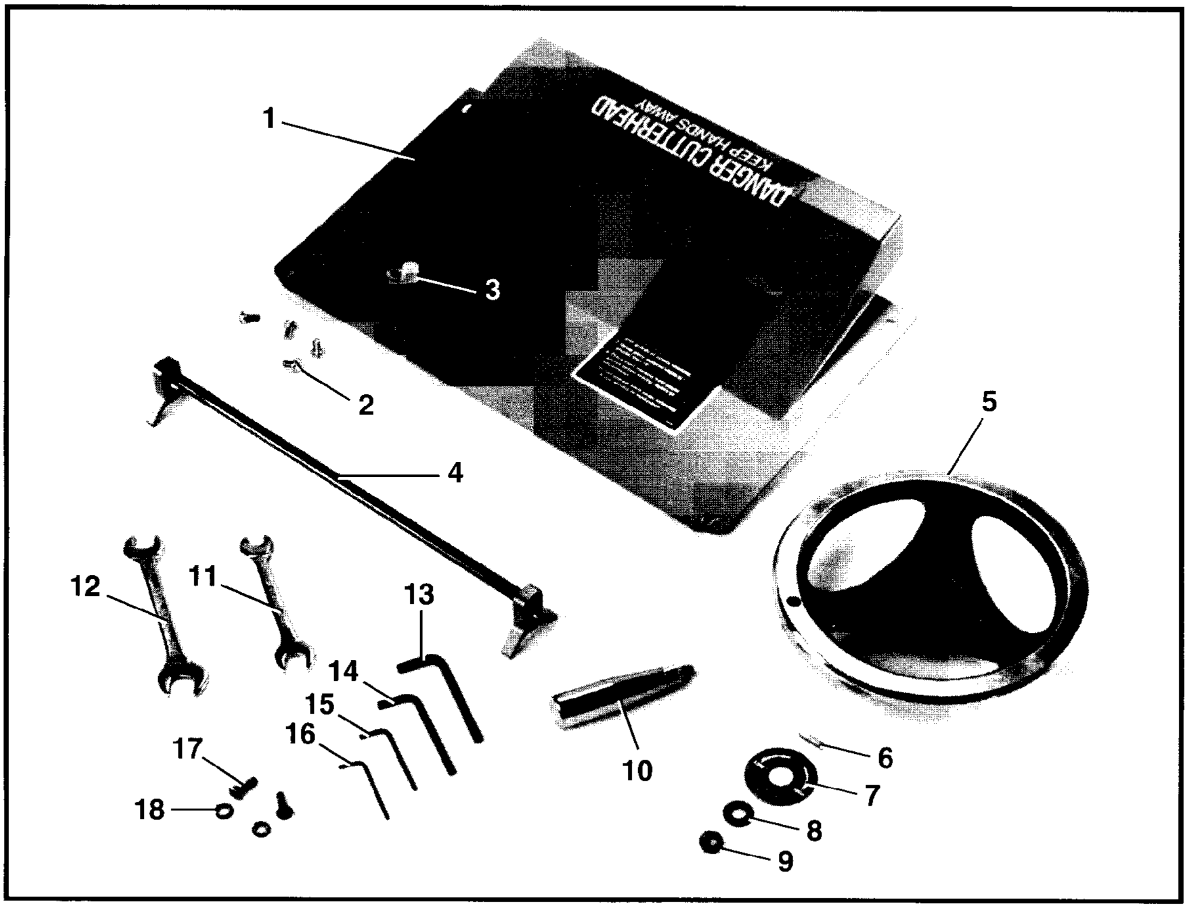

Fig. 3

1 - Top cover
2 - M6 x 16mm hex flange screw (4) - for fastening top cover to machine
3 - Cord clamp
4 - Knife setting gage
5 - Raising and lowering handwheel
6 - Key for raising and lowering handwheel
7 - Decal for raising and lowering handwheel
8 - M10 flat washer for raising and lowering handwheel
9 - M10 hex nut for raising and lowering handwheel
10 - Handle for raising and lowering handwheel
11 - Open end wrench (10 and 12mm)
12 - Open end wrench (14 and 17mm)
13 - Hex wrench (6mm)
14 - Hex wrench (5mm)
15 - Hex wrench (3mm)
16 - Hex wrench (2.5mm)
*17 - M6 x 16mm Screw (2) - for fastening switch bracket to machine
*18 - M6 flat washer (2) - for fastening switch bracket to machine

*Supplied with three phase machines only

REMOVING SHIPPING STRAPS

1. Remove screw (A) Fig. 4, and remove and discard shipping strap (B) from base of machine. Remove remaining shipping strap from other side of machine in the same manner.

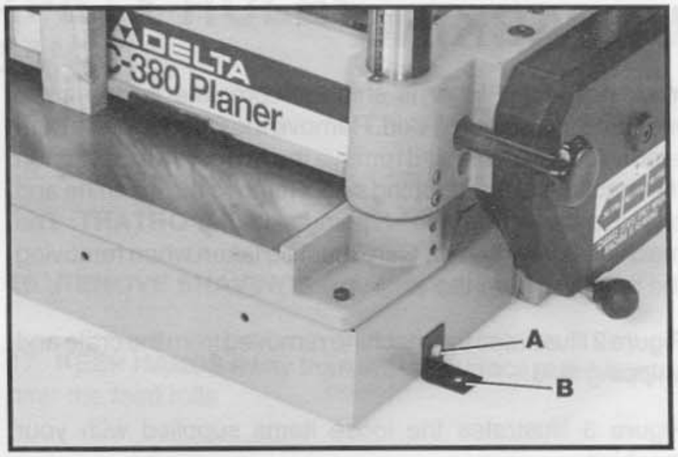

Fig. 4

ASSEMBLING CUTTINGHEAD RAISING AND LOWERING HANDWHEEL

1. Insert key (A) Fig. 5, into keyway (B) of raising and lowering shaflt.

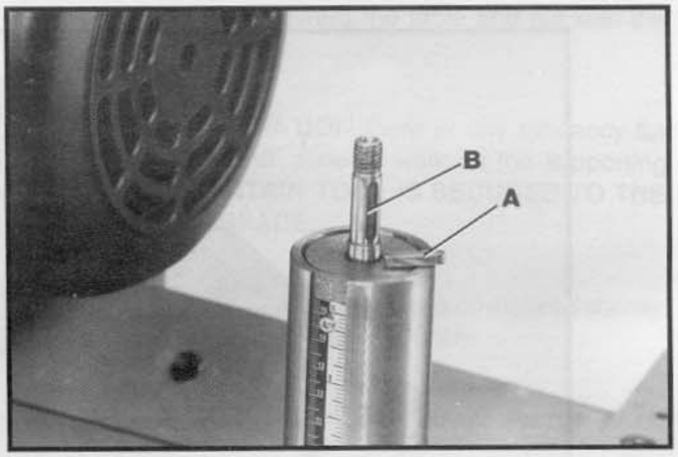

Fig. 5

2. Assemble handwheel (C) Fig. 6, to raising and lowering shaft as shown. Make sure key, which was assembled to shaft in **STEP 1**, is engaged with keyway in hub of handwheel (C).

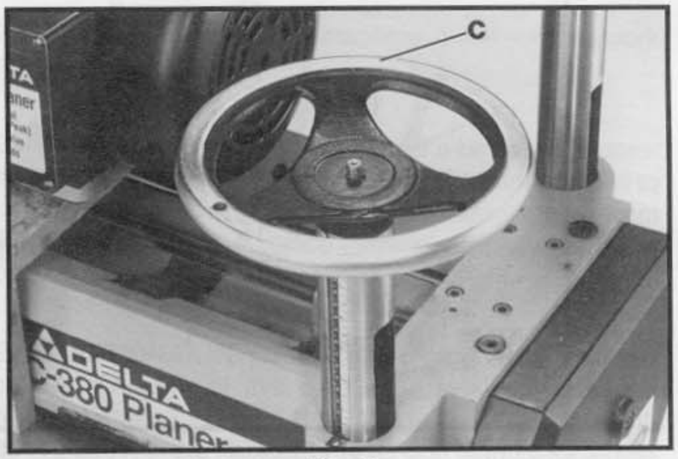

Fig. 6

3. Assemble decal (D) Fig. 7, to raising and lowering shaft as shown.

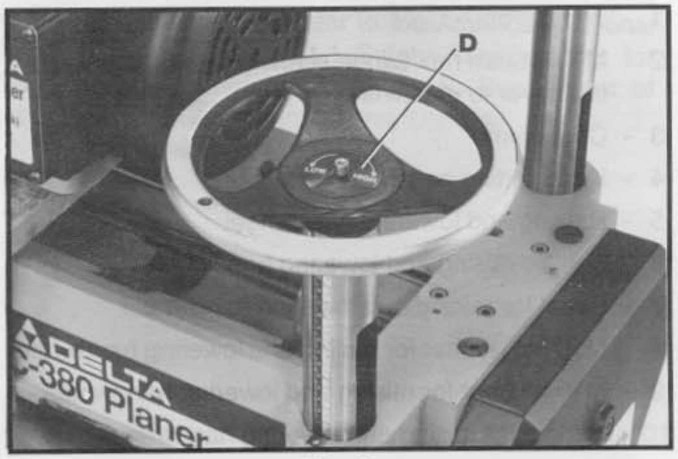

Fig. 7

4. Fasten handwheel (C) Fig. 8, to raising and lowering shaft using flat washer and nut (E) supplied.

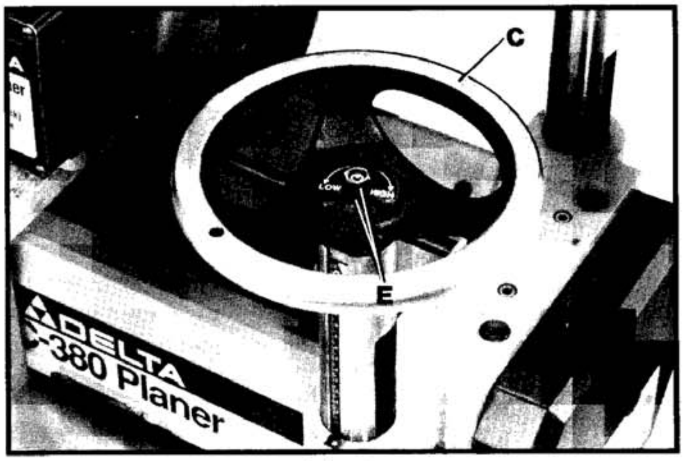

Fig. 8

5. Assemble handle (F) Fig. 9, to handwheel (C) as shown.

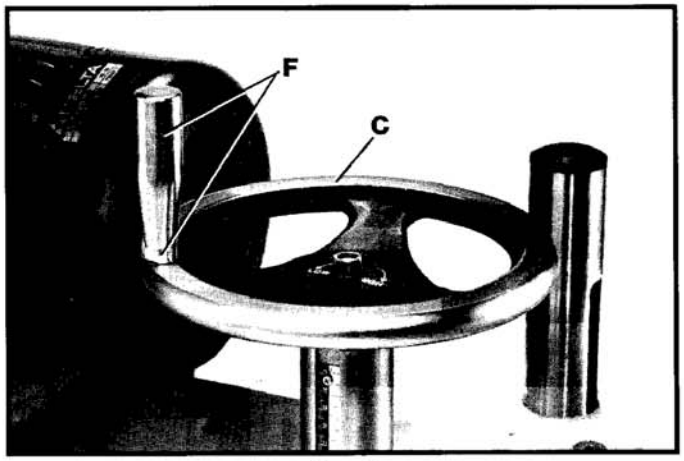

Fig. 9

6. Loosen two head locking knobs, one of which is shown at (G) Fig. 10, and turn handwheel assembly (H) clockwise to raise head assembly. Remove the protective wooden shipping block (J).

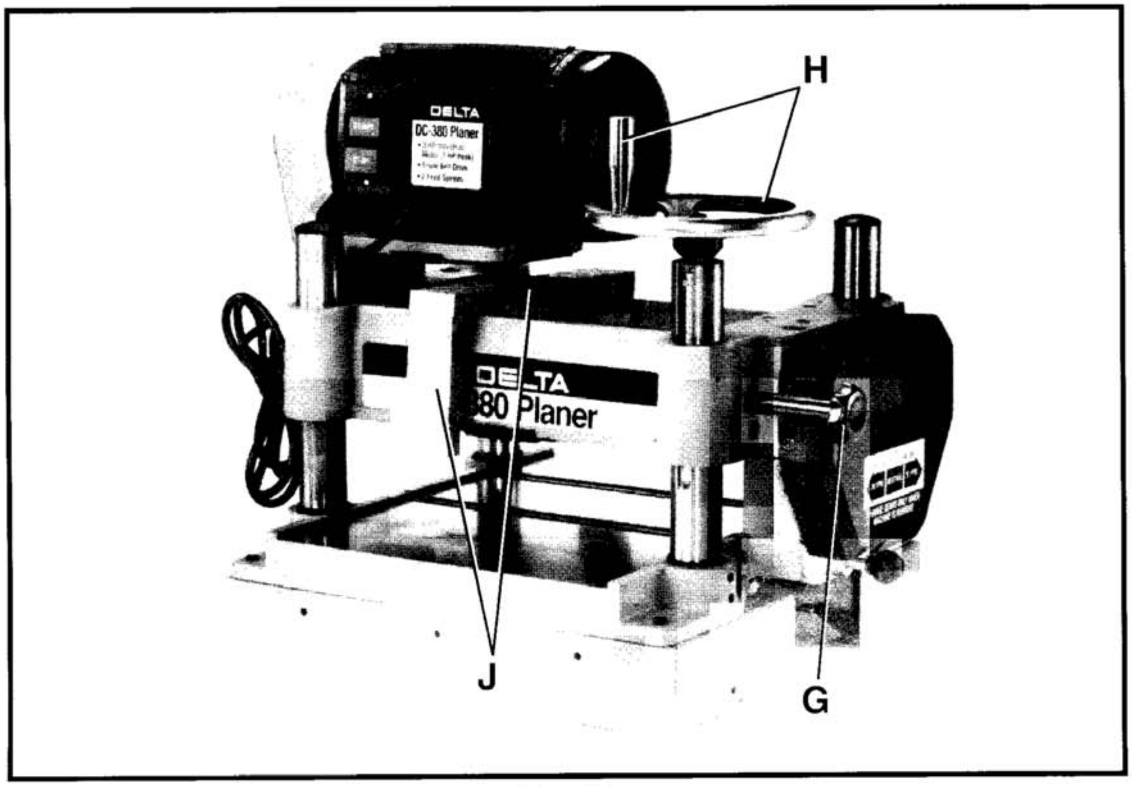

Fig. 10

ASSEMBLING SWITCH TO PLANER
(THREE PHASE MACHINE ONLY)

The switch for the three phase 15″ Planer is supplied wired to the motor and is to be fastened to the planer as follows:

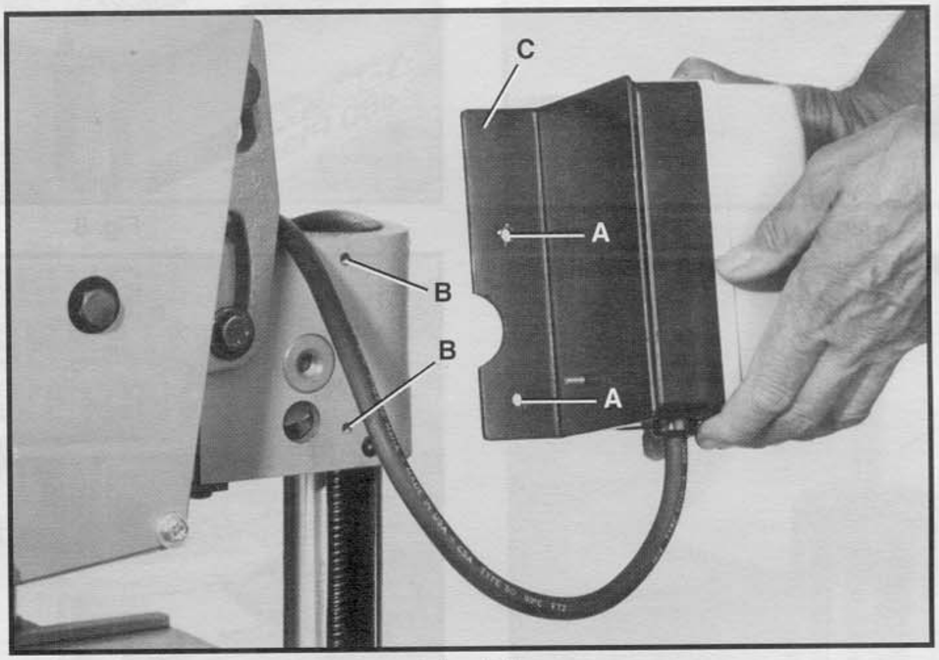

Fig. 10A

1. Line up the two holes (A) Fig. 10A, in the switch bracket (C) with the two threaded holes (B) in the left front of the machine.

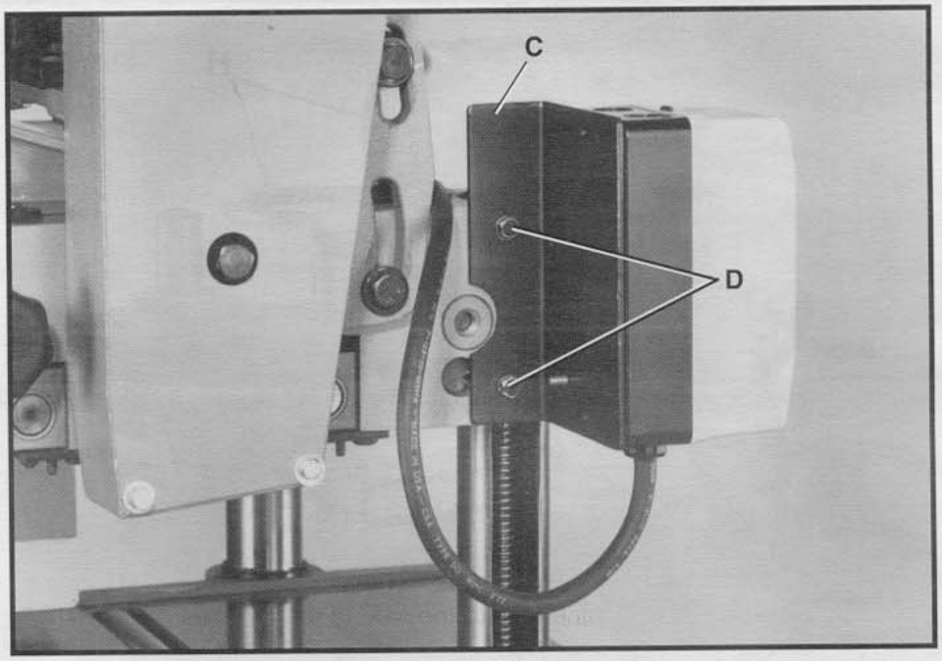

Fig. 10B

2. Fasten the switch bracket (C) Fig. 10B, to the planer using the two screws and flat washers (D) as shown.

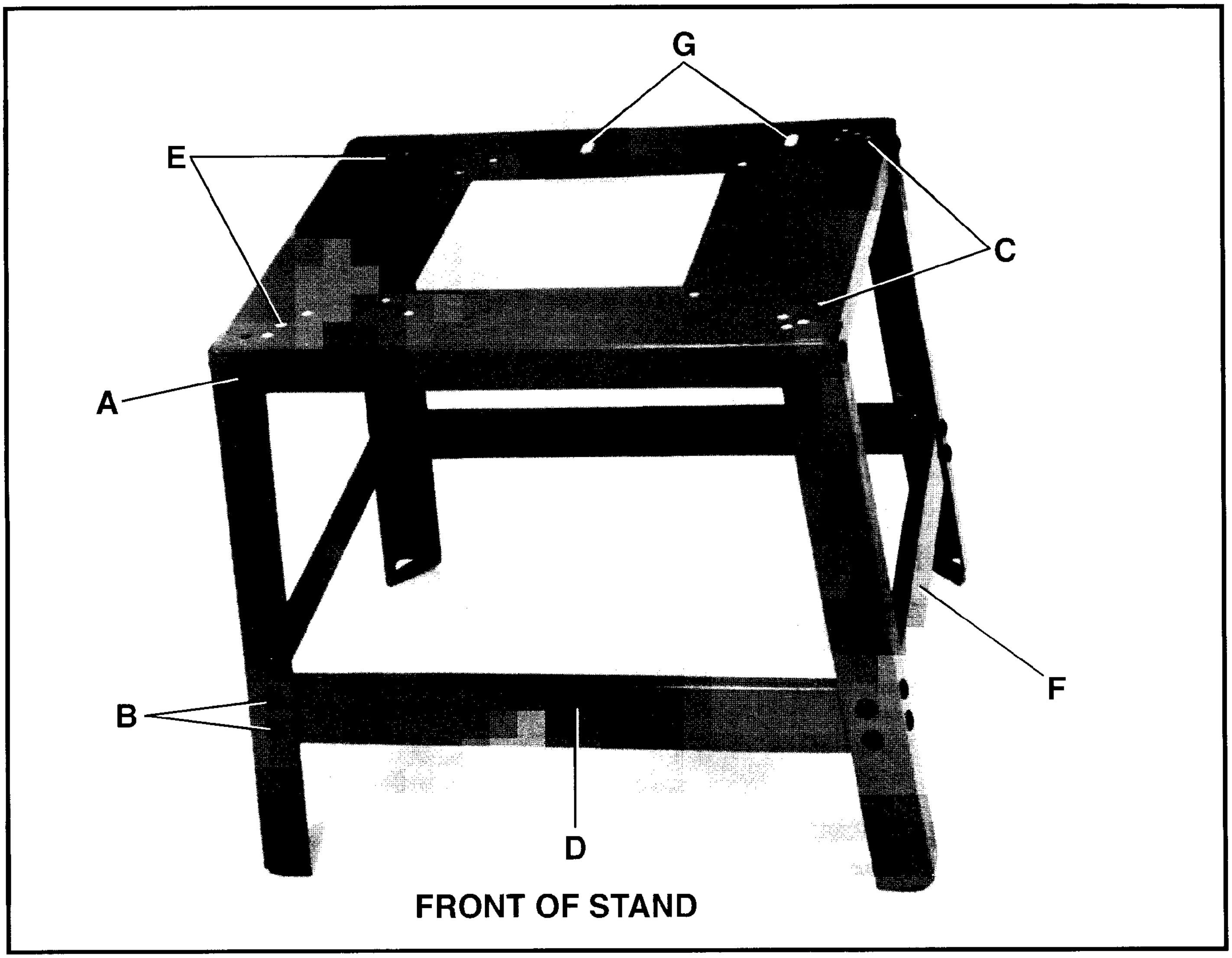

Fig. 11

ASSEMBLING ACCESSORY 50-314 STAND

If you purchased the accessory 50-314 Stand for use with your planer, assemble the stand as follows:

1. Assemble the stand, as shown in Fig. 11, using the 24 carriage bolts, 8 flat washers, 8 lockwashers and 24 nuts supplied. **NOTE:** Eight carriage bolts (A), flat washers, lockwashers and nuts are used to mount the legs to the top shelf of the stand and sixteen carriage bolts (B) and nuts are used to mount the front, rear and side tie bars to the legs. The two side tie bars (F), are 20-15/16" long and the front and rear tie bars (D) are 23-7/16" long.

2. **IMPORTANT:** When lifting the planer to position it on a stand or bench, refer to the following section: **"LIFTING THE MACHINE."**

3. The front end of the top shelf is indicated in Fig. 11. Two slots (G), which are supplied on later models of the 50-314 stand, indicate the rear end of the top shelf. Place the machine on the top shelf with the front (infeed) end of the machine toward the side of the top shelf indicated as FRONT in Fig. 11. The four holes in the base of the machine are to be aligned with the four holes indicated on the top shelf as (C) and (E) making sure that the left hand side of the base will be over holes (E) and the right hand side of the base will be over holes (C). The offset between the top shelf of the stand and the base of the planer will be on the left side. Mount the machine to the top shelf using the four 1" long hex head screws, flat washers, lock washers and hex nuts supplied.

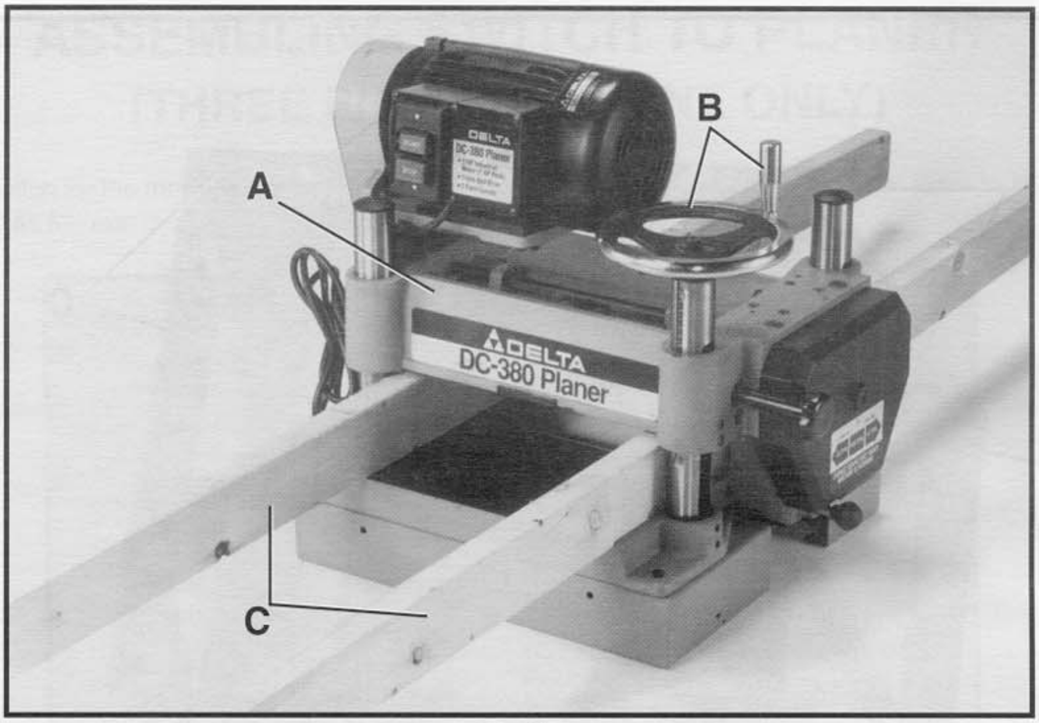

Fig. 12

LIFTING THE MACHINE

1. **IMPORTANT: CARE MUST BE TAKEN WHEN LIFTING THE MACHINE ONTO A STAND OR WORKBENCH. THE PLANER IS VERY HEAVY AND A MINIMUM OF FOUR PEOPLE WILL BE REQUIRED TO LIFT THE MACHINE AS FOLLOWS:**

2. Raise the cuttinghead (A) Fig. 12, by turning the raising and lowering handwheel (B) clockwise, and insert two 6 or 8 foot long 2 x 4's (C) between the cuttinghead and table as shown. Make sure the 2 x 4's (C) are positioned solidly between the table and cuttinghead so they will not rotate during lifting. Then with two people on each end of the 2 x 4's, move the machine to its desired location.

ASSEMBLING TOP COVER AND DUST CHUTE

1. Fasten the top cover and dust chute (A) Fig. 13, to the top of the planer, as shown, using the three screws (B) supplied. **IMPORTANT:** The dust chute opening (C) must point to the rear as shown.

2. Fasten the left corner of the cover to the top of the planer using the remaining screw (D) Fig. 14, and cord clamp (E). **NOTE:** The motor cord (F) must be inserted and positioned into the cord clamp as shown.

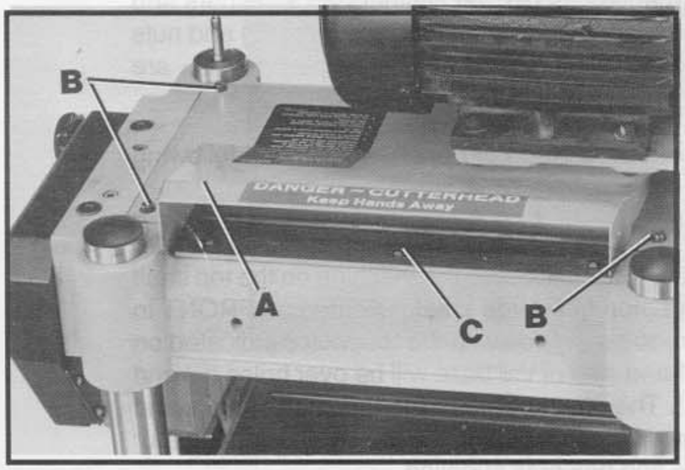

Fig. 13

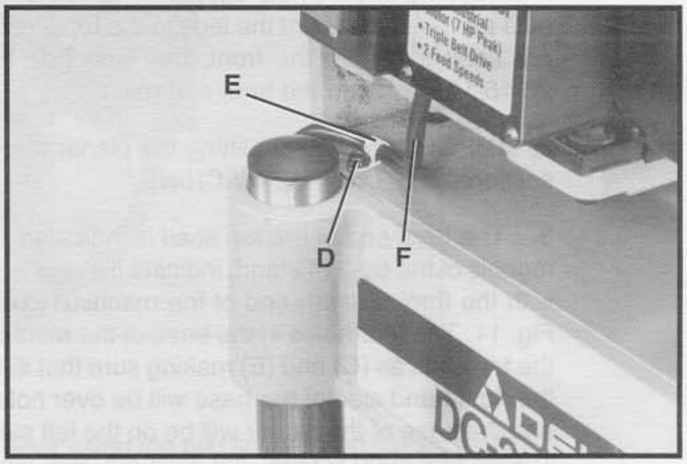

Fig. 14

CONNECTING PLANER TO POWER SOURCE

ELECTRICAL CONNECTIONS

The motor supplied with your 15″ Planer is either a two horsepower, single phase motor or a three horsepower, three phase motor. The two horsepower, single phase motor is wired for 230 Volt operation and the three horsepower, three phase motor is wired for 200-220 Volt operation.

Before connecting your machine to an electrical power system, be sure the motor rating agrees with the electrical system it is to be connected to. We also recommend that #12 wire, fused with a 20 amp, dual element time lag fuse, be used to supply power to all machines regardless of their electrical rating.

230 VOLT, SINGLE PHASE OPERATION

If the motor on your machine is wired for 230 Volt, Single Phase operation, the power cord from the motor is equipped with a plug that has two flat, current-carrying prongs in tandem, and one round or "U"-shaped longer ground prong, as shown in Fig. 15. This plug is used only with the proper mating 3-conductor grounding type receptacle as shown.

When the three prong plug on your machine is plugged into a grounded 3-conductor receptacle, as shown in Fig. 15, the long ground prong on the plug contacts first so that the machine is properly grounded before electricity reaches it.

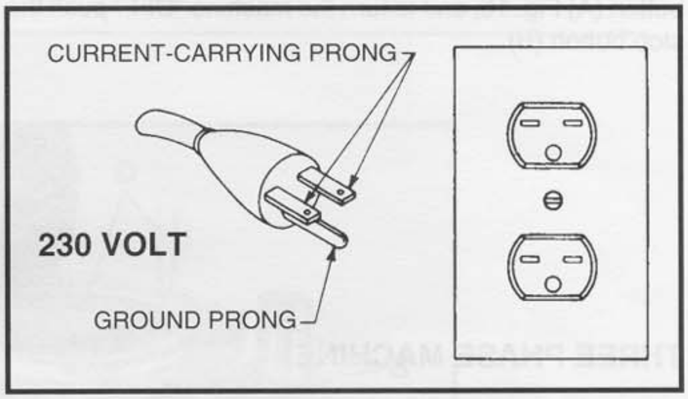

Fig. 15

WARNING: MAKE SURE THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A CERTIFIED ELECTRICIAN CHECK THE RECEPTACLE.

200-220 VOLT, THREE PHASE OPERATION

If the motor on your machine is wired for 200-220 Volt, Three Phase operation, proceed as follows when connecting your planer to an electrical power system:

1. Remove the two screws that attach the switch cover (A) Fig. 15A, to the switch box and remove the switch cover (A).

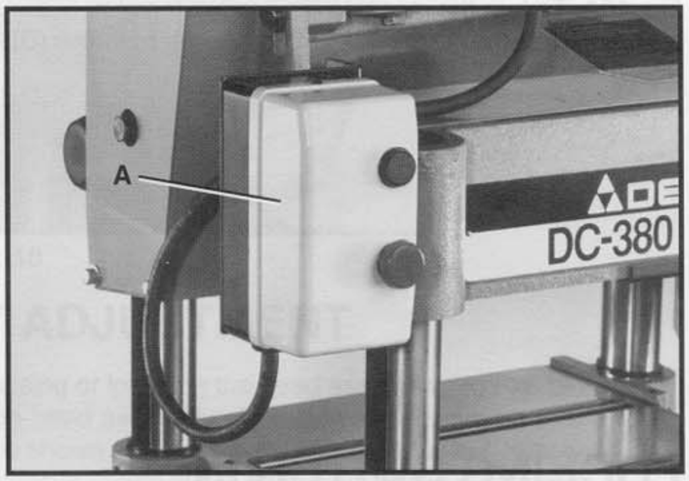

Fig. 15A

2. Remove lower right knockout from bottom of switch box (B) Fig. 15B, and assemble a strain relief (not supplied) in its place.

3. Bring the three phase power line up through the strain relief, and connect the three power lines to terminals L1, L2 and L3, shown at (C) Fig. 15B, and connect the green ground wire to ground screw (D).

4. **IMPORTANT: IF AFTER THE MACHINE IS IN OPERATION THE CUTTERHEAD REVOLVES IN THE WRONG ROTATION, SIMPLY INTERCHANGE ANY TWO OF THE THREE POWER LINES THAT ARE CONNECTED TO TERMINALS (C) FIG. 15B.**

5. Replace switch cover that was removed in **STEP 1**.

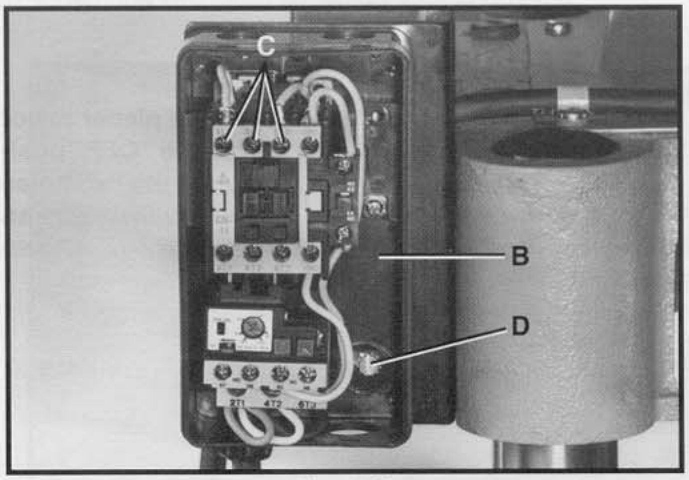

Fig. 15B

OPERATING CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING MACHINE

SINGLE PHASE MACHINE

The on-off push button switch is located on the motor junction box. To turn the machine "ON" push the start button (A) Fig. 16, and to turn the machine "OFF" push the stop button (B).

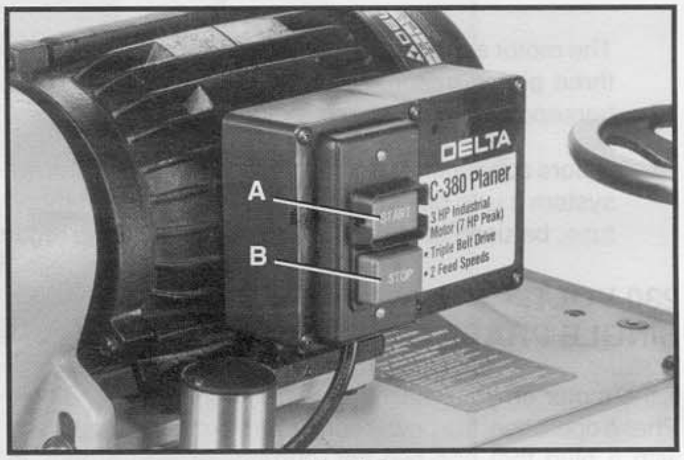

Fig. 16

THREE PHASE MACHINE

On the three phase machine the switch is located on the left front side of the planer head assembly, as shown in Fig. 16A. To turn the machine "ON" press the start button (C), and to turn the machine "OFF" press the stop button (D).

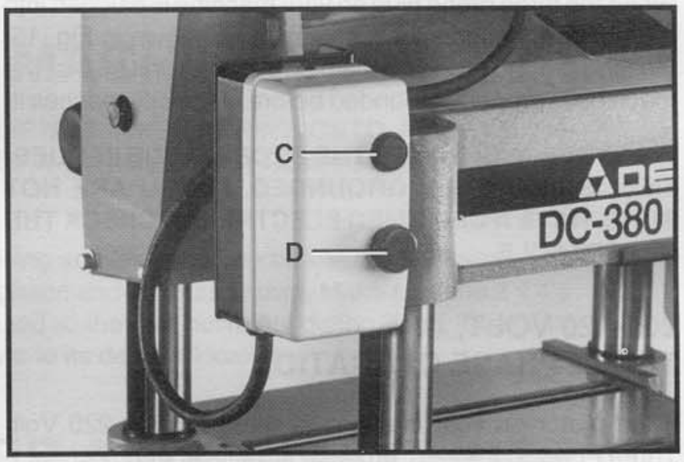

Fig. 16A

LOCKING SWITCH IN THE "OFF" POSITION

SINGLE PHASE MACHINE ONLY

IMPORTANT: We suggest that when the planer is not in use, the on-off switch be locked in the "OFF" position using a padlock (C) Fig. 17, through the two holes in back of the start button as shown. Available as an accessory from Delta is the 50-325 padlock, shown at (C).

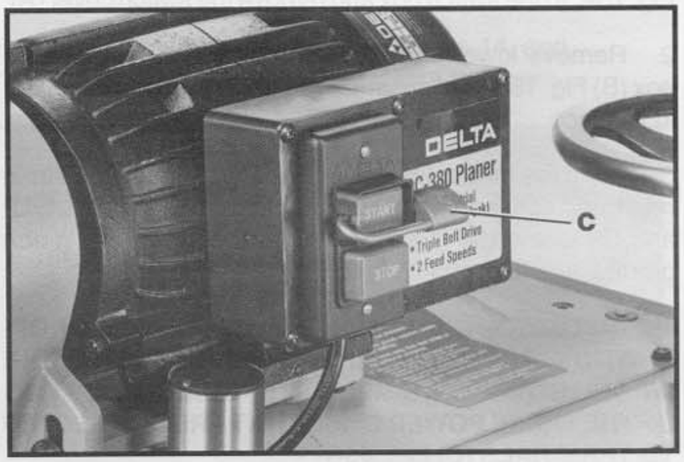

Fig. 17

OVERLOAD PROTECTION

(THREE PHASE MACHINE ONLY)

The three phase machine is provided with overload protection which will shut off the motor if the planer is overloaded or if line voltage falls below safe levels. If the motor shuts off due to overloading or low voltage, let the motor cool for approximately five minutes. The overload block supplied with the machine will automatically reset itself and the machine can then be started again by pushing the start button. **IMPORTANT: If the machine continually shuts off due to overloading, the cause of overloading must be corrected. If this happens, it is recommended you obtain advice from a qualified electrician.**

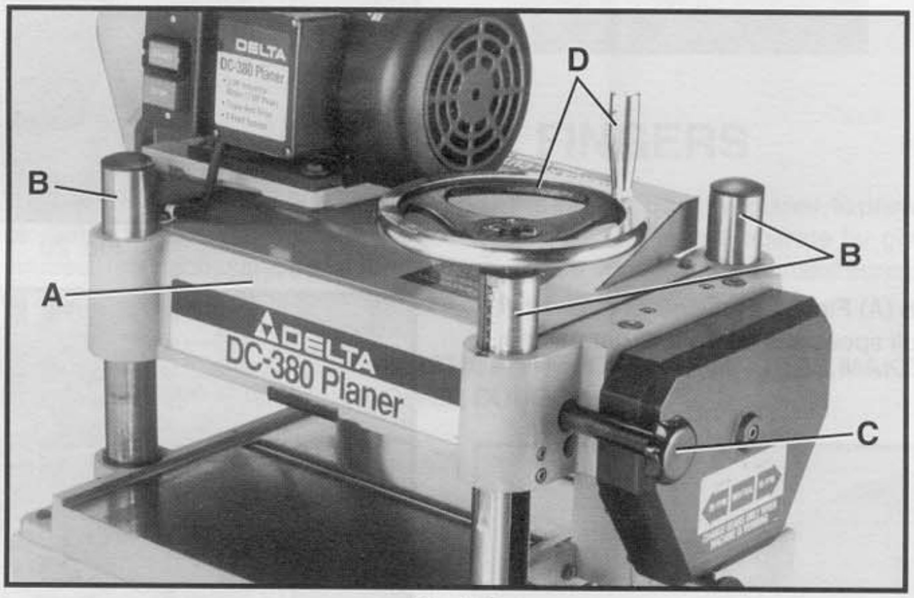

Fig. 18

DEPTH OF CUT ADJUSTMENT

The depth of cut on your planer is controlled by raising or lowering the head assembly (A) Fig. 18, which contains the cutterhead and feed rolls. The head assembly (A) raises and lowers on four precision ground steel columns, three of which are shown at (B). To adjust for depth of cut, simply loosen the two head assembly lock knobs, one of which is shown at (C), and turn the head raising and lowering handwheel (D). Turning the handwheel (D) clockwise, raises the head assembly and counterclockwise, lowers the head assembly. Then tighten the two head assembly lock knobs (C).

The maximum depth of cut when planing stock narrower than 6 inches wide is 3/16" when the stock is run through the planer on one side or the other of the cutterhead. A limiter (E) Fig. 19, is provided to limit the depth of cut to 1/8" on stock wider than 6 inches.

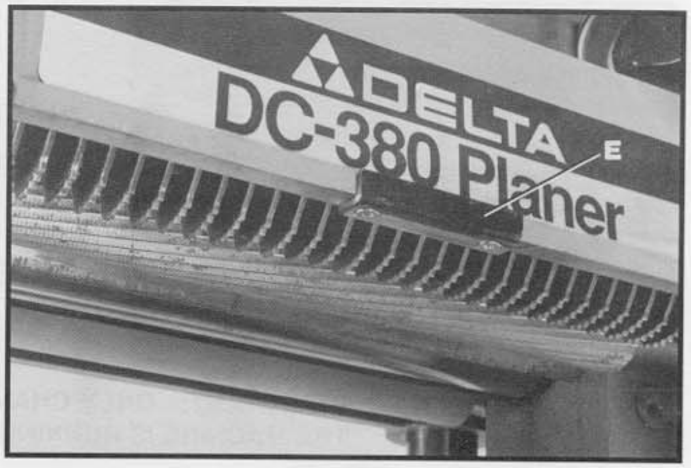

Fig. 19

FEED ROLL SPEED CONTROL

Two feed roll speeds of 16 and 30 feet per minute are provided with your planer. Generally speaking, the slower feed rate provides more cuts per inch, thus a finer, smoother finish of the workpiece is obtained. A good rule to follow would be to operate the machine at the faster feed rate for general planing and switch to the slower feed rate for the final finished dimension of the workpiece. When planing wide stock (wider than 8") particularly in hard wood, the slower feed roll speed (16 feet per minute) is more desirable as there is less strain on the motor and a better finish is obtained since there are more cuts per inch of stock length.

When the shifter knob (A) Fig. 20, is pushed all the way in as shown, the feed roll speed will be 30 feet per minute.

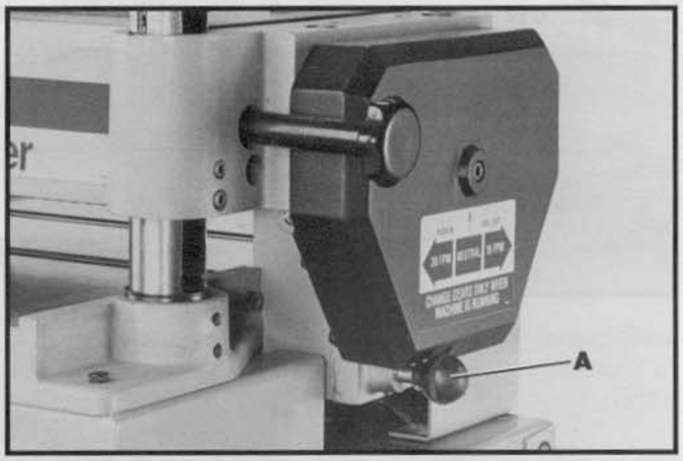

Fig. 20

When the shifter knob (A) Fig. 21, is pulled all the way out as shown, the feed roll speed will be 16 feet per minute.

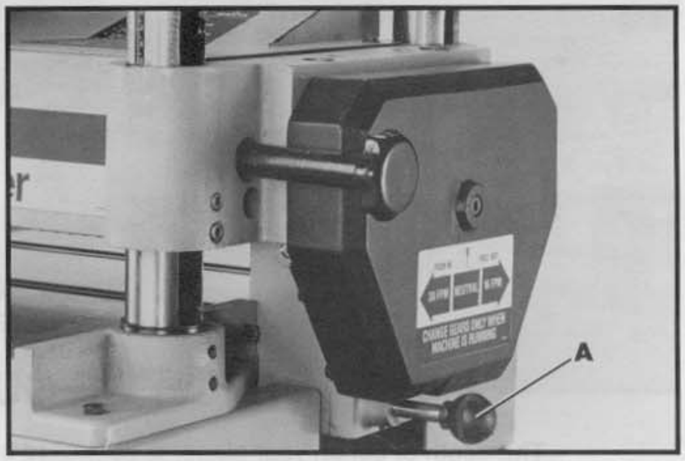

Fig. 21

When the shifter knob (A) Fig. 22, is in the center (neutral) position as shown, the feed rolls are disengaged and the machine will stop feeding.

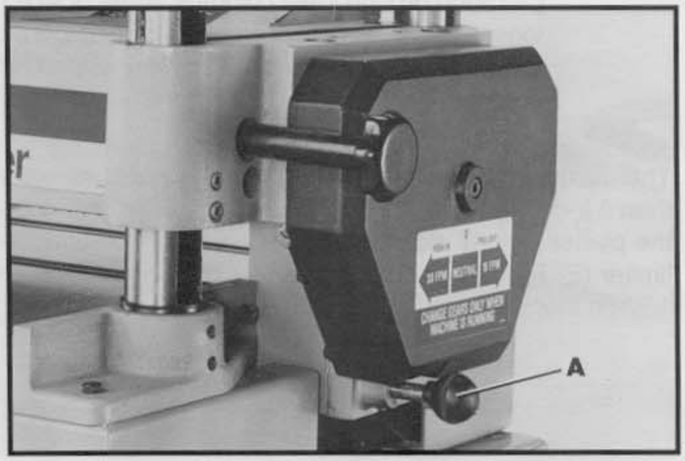

Fig. 22

IMPORTANT: ONLY CHANGE FEED ROLL SPEEDS WHEN THE MACHINE IS RUNNING.

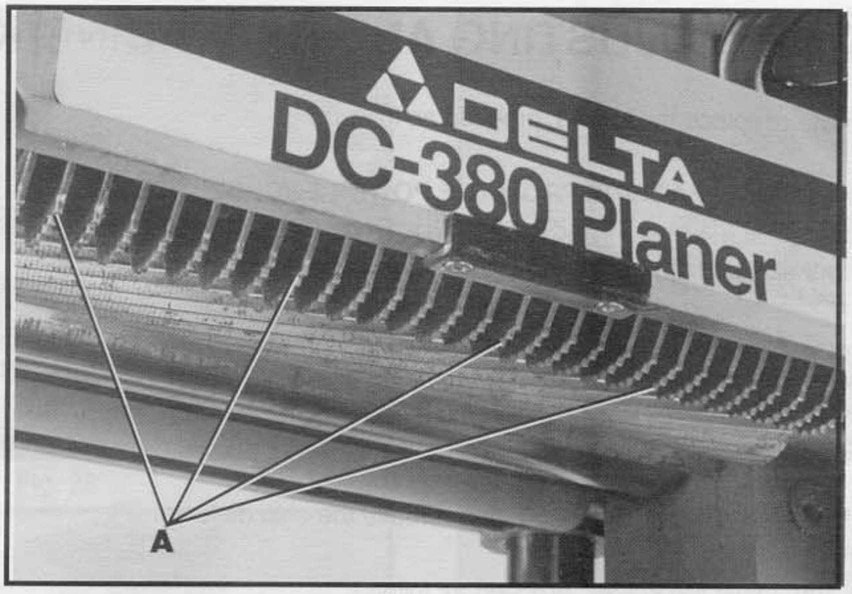

Fig. 23

ANTI-KICKBACK FINGERS

A series of anti-kickback fingers (A) Fig. 23, are provided on the infeed end of the planer, to prevent kickback of the workpiece during the planing operation. These anti-kickback fingers operate by gravity and no adjustment is required. It is necessary, however, to inspect them occasionally to make sure they are free of gum and pitch and that they move independently and operate correctly.

WARNING: WHEN INSPECTING AND CLEANING THE ANTI-KICKBACK FINGERS, MAKE SURE THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

ADJUSTING BELT TENSION

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Remove four screws (A) Fig. 24, and remove the belt and pulley guard cover (B).

3. Place a 2 x 4 (D) Fig. 25, between the motor plate and the top of the head casting as shown.

4. Loosen the two screws (C) Fig. 25, and pry up on motor plate until correct belt tension is obtained. Correct tension is when there is approximately 1/4" deflection in the center span of the belts using light finger pressure. Then tighten the two screws (C) and replace belt and pulley guard cover.

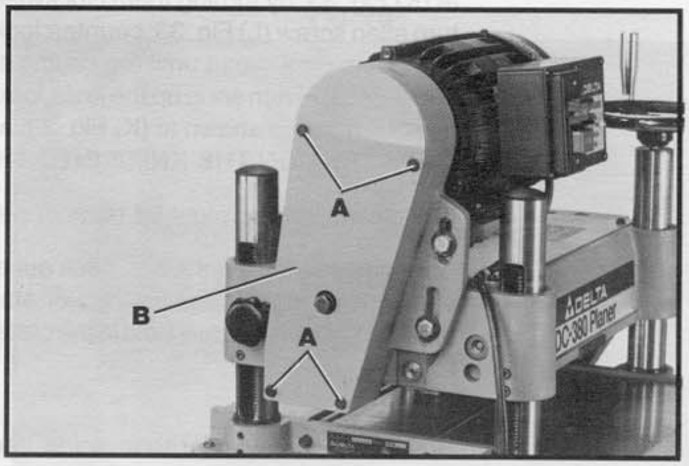

Fig. 24

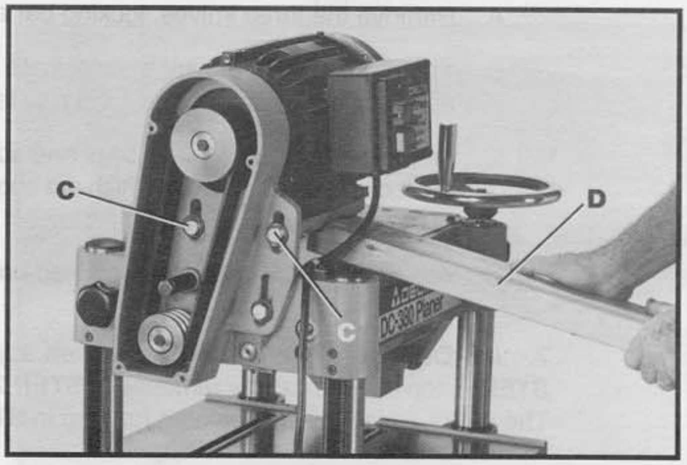

Fig. 25

CHECKING, ADJUSTING AND REPLACING KNIVES

To check, adjust or replace the knives, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Remove four screws (A) Fig. 26 and Fig. 27, and remove top cover (B).

3. Loosen two screws (C) Fig. 28, and pivot motor assembly (D) to the front, as shown in Fig. 29. **NOTE:** Belt tension is not disturbed when pivoting the motor forward. **WARNING: THE CUTTERHEAD AND KNIVES ARE NOW EXPOSED AND CARE SHOULD BE TAKEN AS THE KNIVES ARE VERY SHARP.**

4. Remove the three screws (E) Fig. 30, and remove the chip deflector (F).

5. To check and adjust the knives, proceed as follows:

   A. Carefully place the knife setting gage (G) Fig. 31, on the cutterhead as shown.

   B. When the knives are adjusted correctly, the knife (H) Fig. 32, should just contact the bottom of the gage (J), at each end of the gage. Check the remaining two knives in the same manner.

   C. If any of the knives require an adjustment, slightly loosen the knife locking bar in each of the three knife slots by turning the locking screws (two of which are shown at (K) Fig. 33), clockwise into the locking bar just enough to relieve stress in the cutterhead but not disturb the setting of the knives.

   D. To adjust the knife that must be reset, loosen all five locking screws, two of which are shown at (K) Fig. 33, by turning them clockwise into the lock bar. Then using the wrench supplied, turn allen screw (L) Fig. 33, counterclockwise to lower or clockwise to raise the knife on each end of the cutterhead until the cutting edge of knife (H) Fig. 32, just touches the bottom of the gage (J). Then snug up the knife locking bar by lightly backing out the five locking screws, two of which are shown at (K) Fig. 33, against the knife slot. **IMPORTANT: AT THIS TIME, ONLY TIGHTEN THE KNIFE INTO THE SLOT ENOUGH TO HOLD IT IN POSITION.**

   E. If additional knives must be reset, repeat **STEP D.**

   F. After all three knives are set, back out and tighten the five locking screws, two of which are shown at (K) Fig. 33, against the slot, starting with the end screws first, then the center screws until the knife is securely held in the cutterhead. Tighten the remaining two knives in the same manner.

6. If the knives are removed for sharpening, care must be exercised in replacing and resetting them, as follows:

   A. Remove the three knives, locking bar and locking screws from the cutterhead.

   B. Thoroughly clean the knife slots, knife bars and screws. Check the screws. If the threads appear worn or stripped or if the heads are becoming rounded, replace them.

   C. Insert knives, knife locking bars and screws into all three slots in the cutterhead. Back out the locking screws, two of which are shown at (K) Fig. 33, just enough to hold all three knives in the cutterhead.

   D. Adjust all three knives as explained under **STEP 5.**

7. **IMPORTANT:** After knives have been adjusted, replace chip deflector that was removed in **STEP 4**, top cover that was removed in **STEP 2** and return motor assembly to the upright position. The motor assembly was pivoted forward in **STEP 3.**

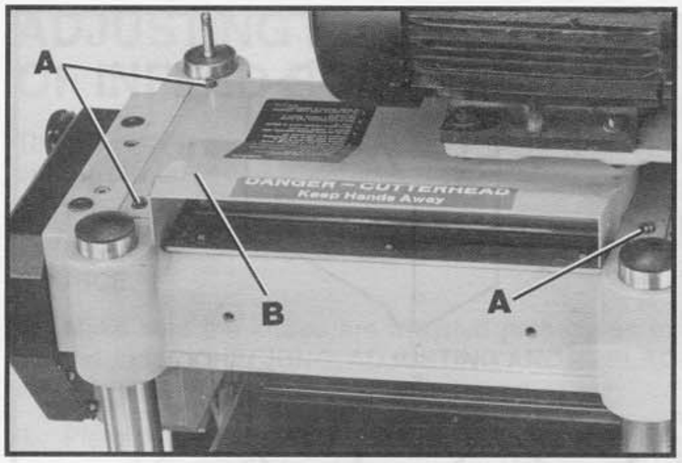

Fig. 26

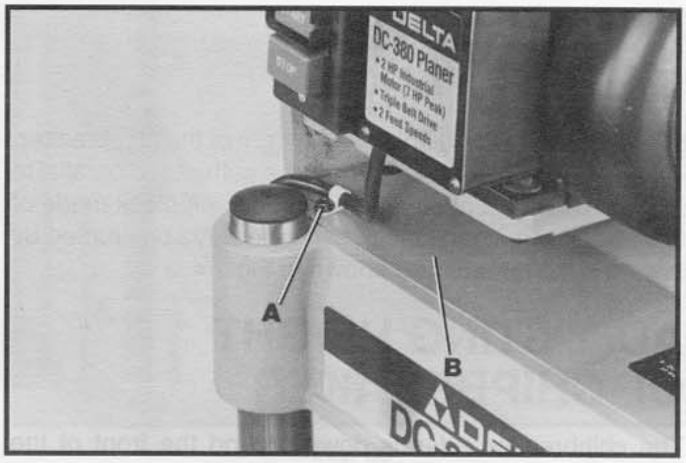

Fig. 27

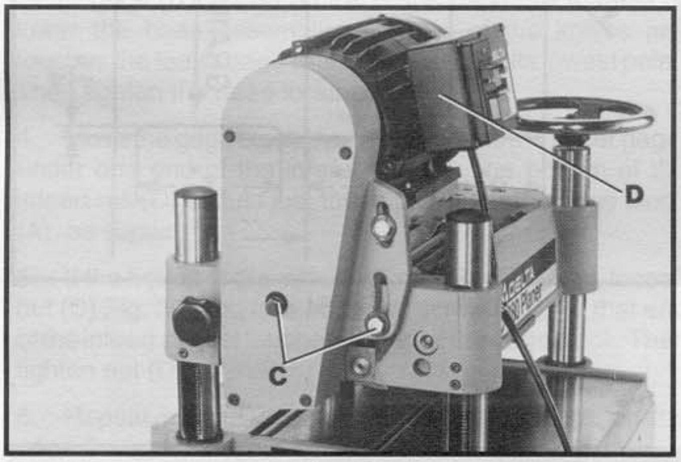

Fig. 28

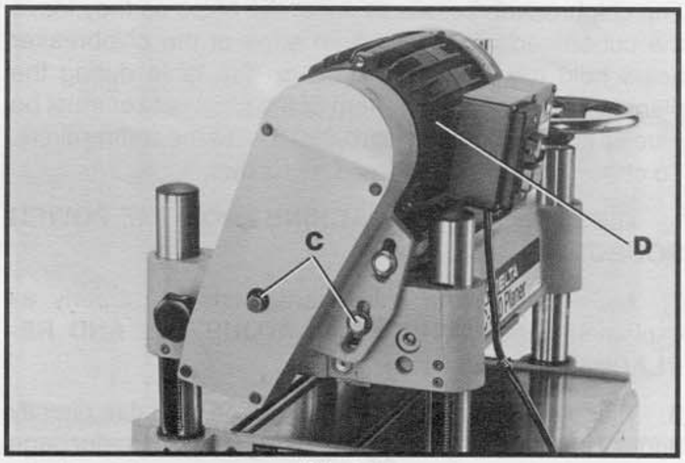

Fig. 29

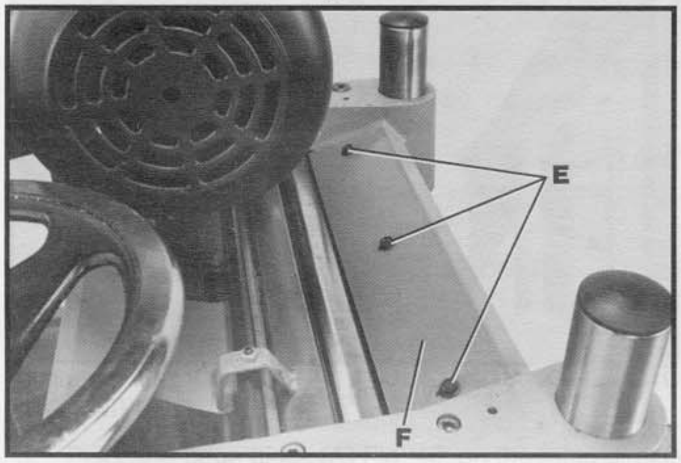

Fig. 30

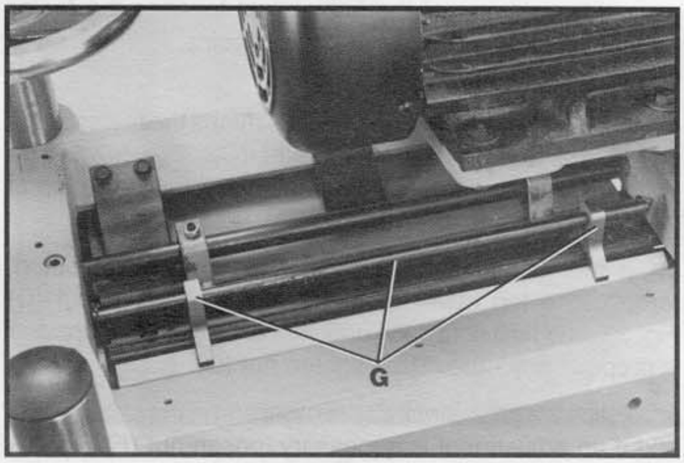

Fig. 31

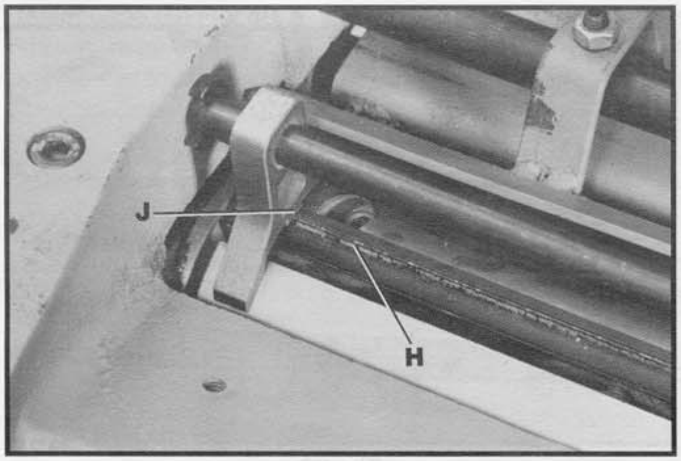

Fig. 32

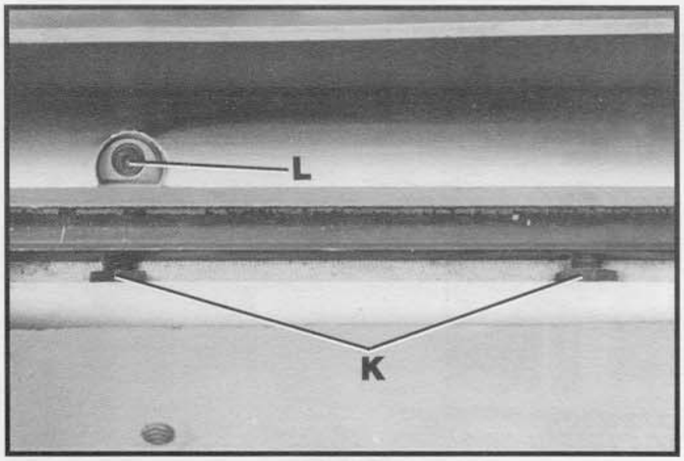

Fig. 33

CONSTRUCTING GAGE BLOCK

In order to check and adjust the height of the chipbreaker, infeed and outfeed roll and adjust the cutterhead parallel to the table, you will need a homemade gage block made of hard wood. This gage block can be easily constructed by following the dimensions shown in Fig. 34.

ADJUSTING HEIGHT OF CHIPBREAKER

The chipbreaker extends down around the front of the cutterhead and raises as stock is fed through the planer. The chipbreaker "breaks or curls" the chips as they leave the cutterhead and the bottom edge of the chipbreaker helps hold the stock flat down on the table during the planing operation. The bottom of the chipbreaker must be parallel to the knives and set 0.020" below the cutting circle. To check and adjust, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Make certain the knives are adjusted properly as explained under **"CHECKING, ADJUSTING AND REPLACING KNVIES."**

3. Place the gage block (A) Fig. 35, on the table directly under the cutterhead as shown. Using a 0.020" feeler gage (B) placed on top of the gage block, raise or lower the head assembly until one of the knives just touches the feeler gage when the knife is at its lowest point. Then lock the head assembly in this position.

4. Place the gage block (A) Fig. 36, minus the feeler gage, under one end of the chipbreaker (C), as shown. The bottom of the chipbreaker (C) should just touch the top of the gage block, as shown.

5. If the height of the chipbreaker must be adjusted, remove the top cover of the machine. Loosen nut (D) Fig. 37, and turn screw (E) until that end of the chipbreaker is properly adjusted. Then tighten nut (D).

6. Place the gage block on the other end of the chipbreaker and if an adjustment is necessary loosen nut (F) Fig. 37, and turn adjusting screw (G).

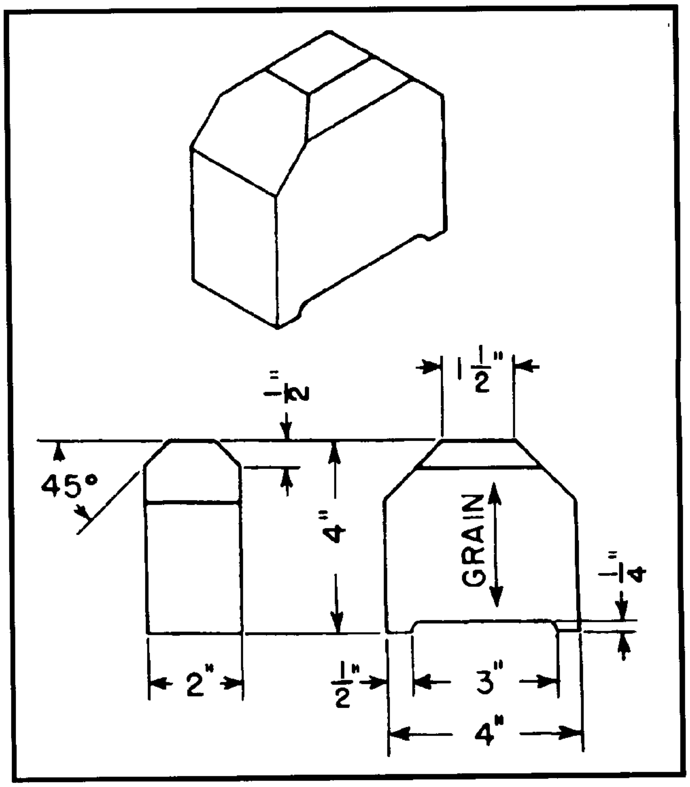

Fig. 34

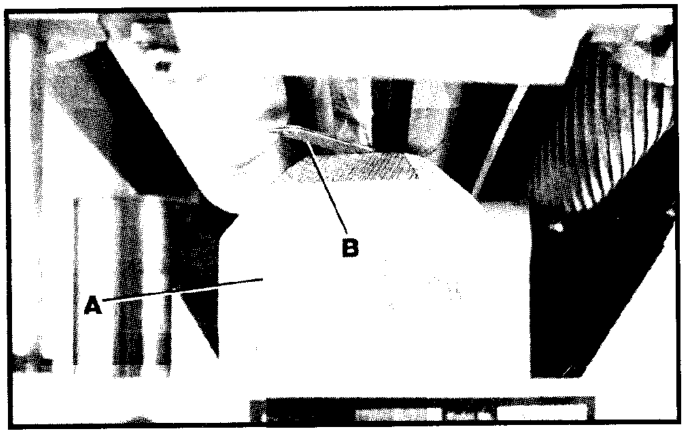

Fig. 35

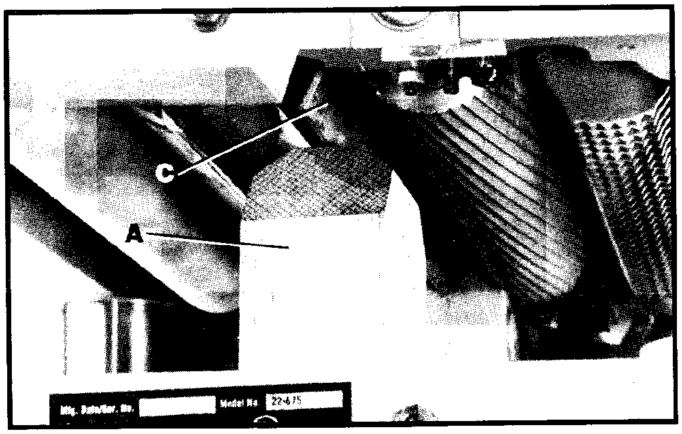

Fig. 36

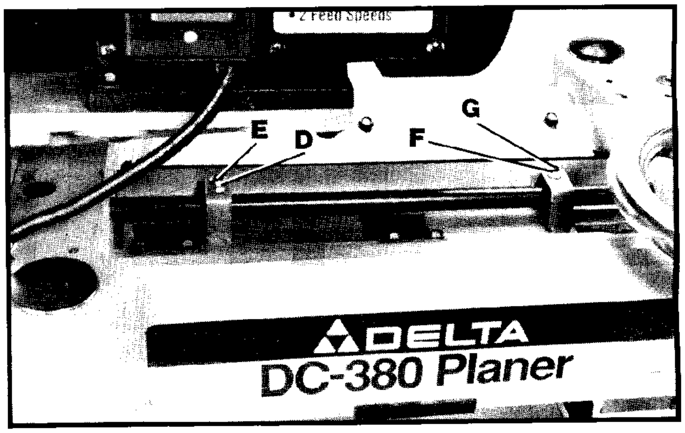

Fig. 37

ADJUSTING HEIGHT OF INFEED ROLL

The infeed roll is adjusted at the factory at **0.040" below the cutting circle.** To check and adjust the height of the infeed roll, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Make sure the knives are adjusted properly as explained under **"CHECKING, ADJUSTING AND REPLACING KNIVES."**

3. Place the gage block (A) Fig. 38, on the table directly underneath the cutterhead, as shown. Using a 0.040" feeler gage (B) placed on top of the gage block, raise or lower the head assembly until one of the knives just touches the feeler gage when the knife is at its lowest point. Then tighten the head locking knobs.

4. Move the gage block (A) Fig. 39, minus the feeler gage, under one end of the infeed roll (C). The bottom of the infeed roll (C) should just touch the top of the gage block (A), as shown.

5. If the height of the infeed roll must be adjusted, loosen nut (D) Fig. 39, and turn adjusting screw (E) until that end of the infeed roll just touches the top of the gage block. Then tighten nut (D).

6. Repeat this adjustment with the gage block on the opposite end of the infeed roll.

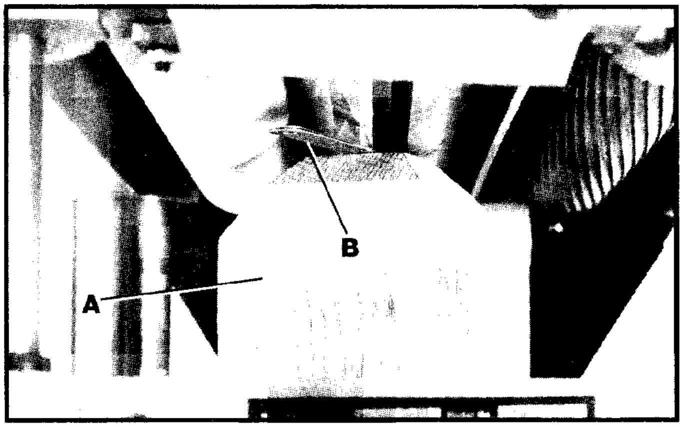

Fig. 38

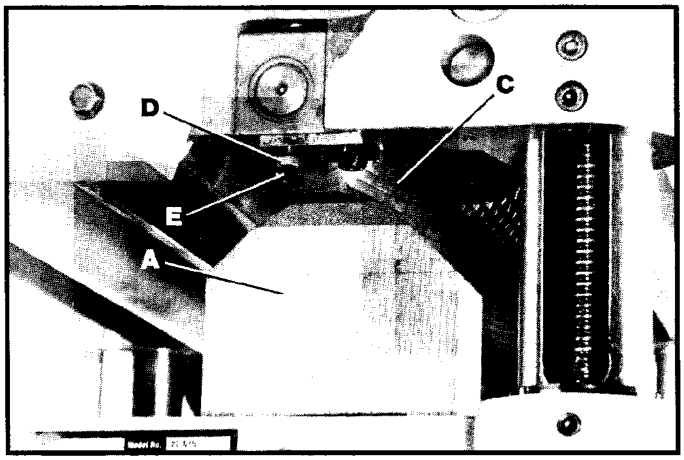

Fig. 39

ADJUSTING HEIGHT OF OUTFEED ROLL

The outfeed roll is adjusted at the factory to be **0.040" below the cutting circle.** To check and adjust the height of the outfeed roll, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Make sure the knives are adjusted properly as explained under **"CHECKING, ADJUSTING AND REPLACING KNIVES."**

3. Place the gage block (A) Fig. 40, on the table directly underneath the cutterhead, as shown. Using a 0.040" feeler gage (B) Fig. 40, placed on top of the gage block as shown, raise or lower the head assembly until one of the knives just touches the feeler gage when the knife is at its lowest point. Then tighten the head locking knobs.

4. Move the gage block (A) Fig. 41, minus the feeler gage, under the end of the outfeed roll (C). The bottom of the outfeed roll (C) should just touch the top of the gage block (A).

5. If the height of the outfeed roll must be adjusted, loosen nut (D) Fig. 41, and turn screw (E) until the outfeed roll is properly adjusted.

6. Repeat this adjustment procedure on the opposite end of the outfeed roll in the same manner.

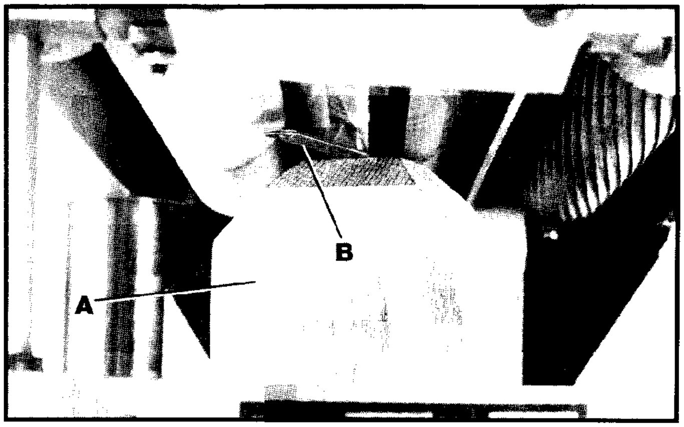

Fig. 40

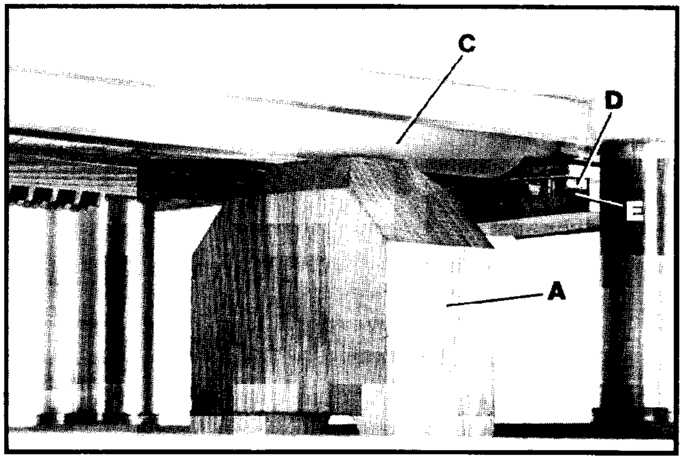

Fig. 41

ADJUSTING SPRING TENSION OF INFEED AND OUTFEED ROLLS

The infeed and outfeed rolls are those parts of your planer that feed the stock while it is being planed. The feed rolls are under spring tension and this tension must be sufficient to feed the stock uniformly through the planer without slipping but should not be too tight that it causes damage to the board. The tension should also be equal at both ends of each roll.

To adjust the spring tension of the infeed roll, turn two screws, one of which is shown at (A) Fig. 42. The other screw is located on the opposite side of the machine. A good starting point to use in setting the spring tension of the infeed roll is to adjust the two screws (A) until there are **FOUR** threads showing above the table casting. To increase or decrease the spring tension further, adjust screws (A).

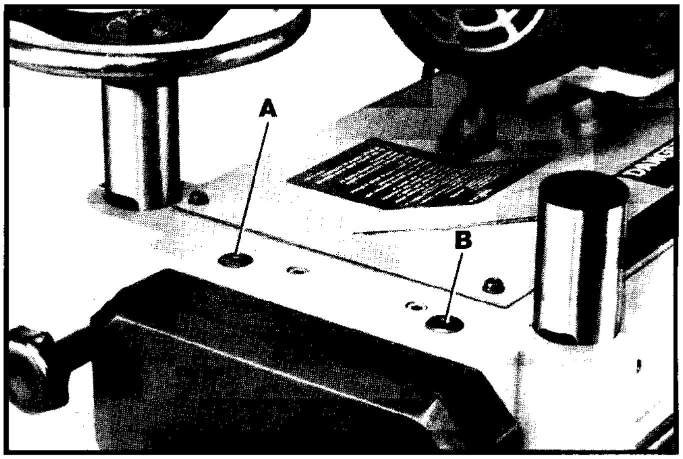

Fig. 42

To adjust the spring tension of the outfeed roll, turn two screws, one of which is shown at (B) Fig. 42. The other screw is located on the opposite side of the machine. A good starting point to use in setting the spring tension of the outfeed roll is to adjust the two screws (B) until there is **ONE** thread showing above the table casting. To increase or decrease the spring tension further, adjust screws (B).

ADJUSTING TABLE ROLLS

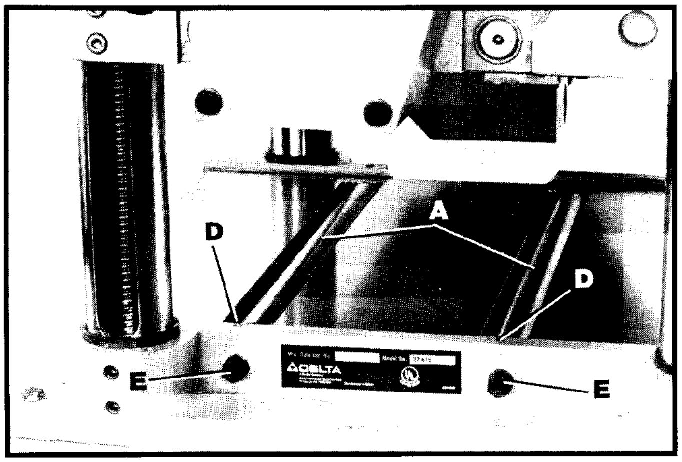

Fig. 43

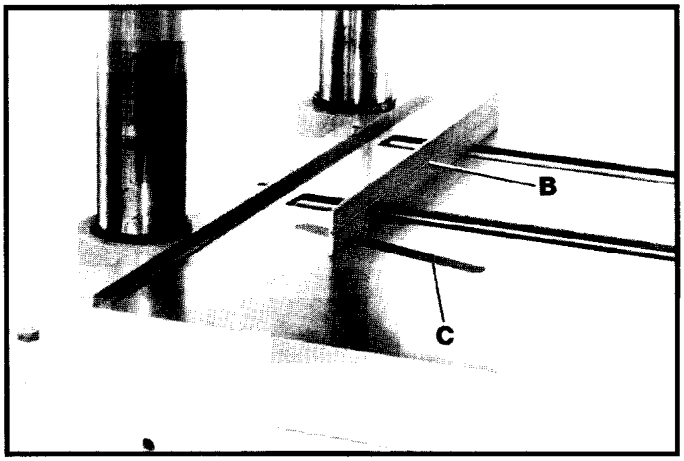

Fig. 44

Your planer is supplied with two table rolls (A) Fig. 43, which aid in feeding the stock by reducing friction and turn as the stock is fed through the planer. It is not possible to give exact dimensions on the proper height setting of the table rolls because each type of wood behaves differently. As a general rule, however, when planing rough stock the table rolls should be set **HIGH** (0.003" to 0.005") above the table surface and when planing finish stock the table rolls should be set **LOW**, 0.001" above the table surface or level with the table surface.

The table rolls on your planer are set for average planing and are parallel to the table surface. If you desire to adjust the table rolls higher or lower, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Lay a straight edge (B) Fig. 44, across both rolls and with a feeler gage (C) underneath the straight edge as shown, adjust height of table rolls by loosening set screws (D) Fig. 43, and turn screws (E) to raise or lower table rolls (A). Table rolls must be adjusted on the opposite end of table in the same manner. The table rolls must always be set parallel to the table. **IMPORTANT: The adjustment screws (E) Fig. 43, on both sides of the planer are on eccentrics and care should be taken when adjusting to keep the rolls from leading the stock to one side or the other. This can be accomplished by turning screws (E) Fig. 43, clockwise to raise or lower the rolls and turning the two screws on the opposite end of the rolls counterclockwise or vice versa.**

ADJUSTING CUTTINGHEAD PARALLEL TO TABLE

The cuttinghead is set parallel to the table at the factory and no further adjustment should be necessary. If your machine is planing a taper, first check to see if the knives are set properly in the cutterhead. Then check to see if the cuttinghead is set parallel to the table as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Place gage block (A) Fig. 45, on table directly under front edge of head casting (B) as shown. Lower head casting until front edge of head casting (B) just touches the top of the gage block.

3. Move gage block (A) Fig. 46, to opposite end of table, as shown. Distance from table to edge of head casting should be the same.

4. Repeat **STEPS 2** and **3** on outfeed end of table.

5. If head casting is not parallel to table, tilt planer on its side as shown in Fig. 47. Remove bolt (C) and loosen bolt (D) Fig. 47, which will allow you to move the idler sprocket assembly (E) far enough to release tension on chain as shown in Fig. 48. Remove chain from sprocket on end of headcasting that must be adjusted. In this case chain has been removed from sprocket (F).

6. Turn sprocket (F) Fig. 48, by hand to bring that corner into adjustment with the other three corners. **IMPORTANT: THIS ADJUSTMENT IS VERY SENSITIVE AND IT SHOULD NOT BE NECESSARY TO TURN THE SPROCKET MORE THAN ONE OR TWO TEETH.** Turning sprocket (F) clockwise will decrease the distance between the table and headcasting. Counterclockwise will increase the distance.

7. Replace chain being careful not to disturb the position of the sprockets and replace idler sprocket assembly (E) Fig. 47.

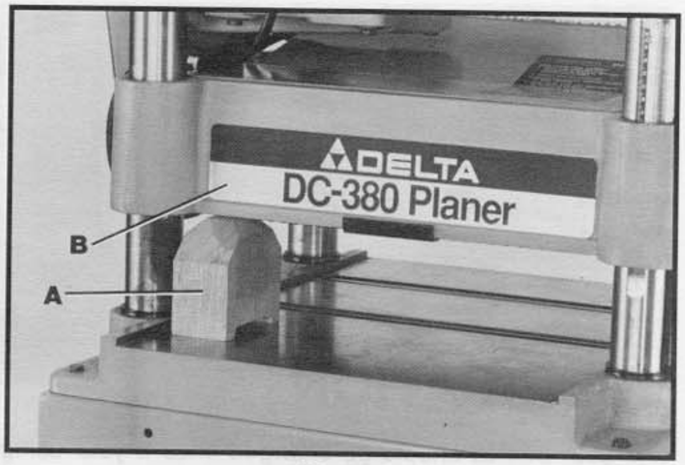

Fig. 45

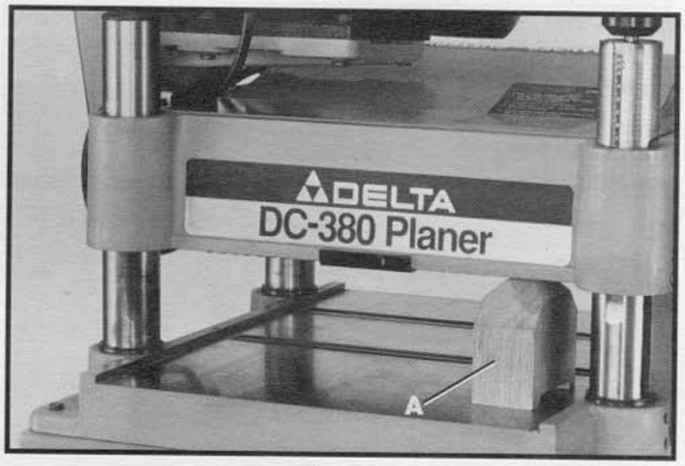

Fig. 46

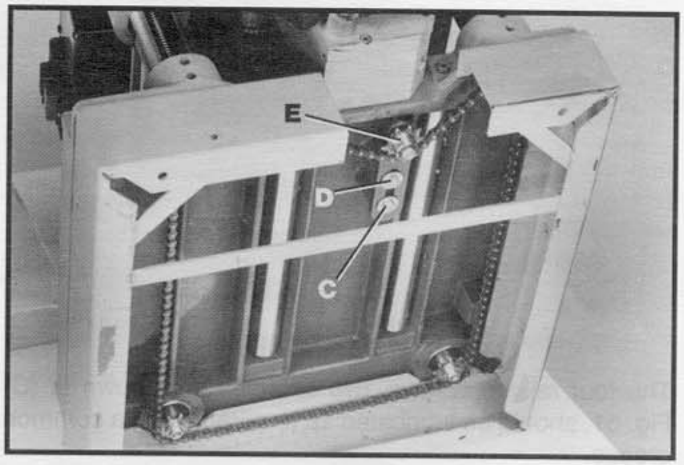

Fig. 47

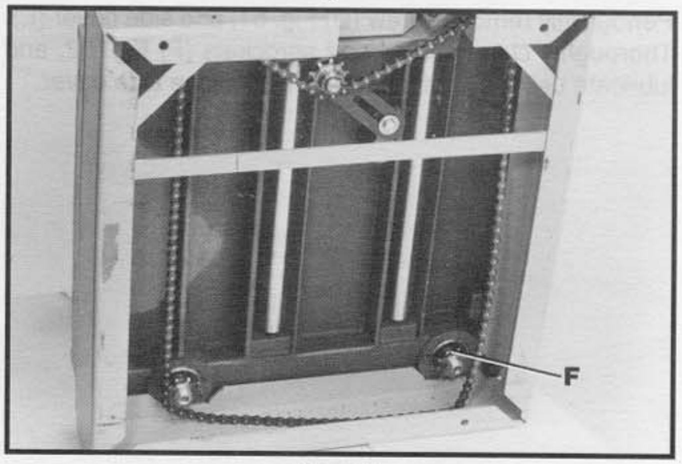

Fig. 48

LUBRICATION

The gear box oil should be changed once a year using extreme pressure gear oil, available from Delta in one pint cans under part number 999-01-013-1210. The gear box drain plug is shown at (A) Fig. 49. The oil fill and level plug is shown at (B) Fig. 50.

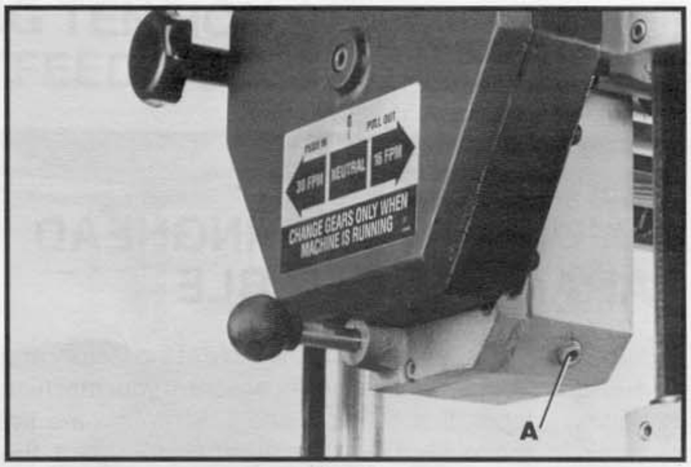

Fig. 49

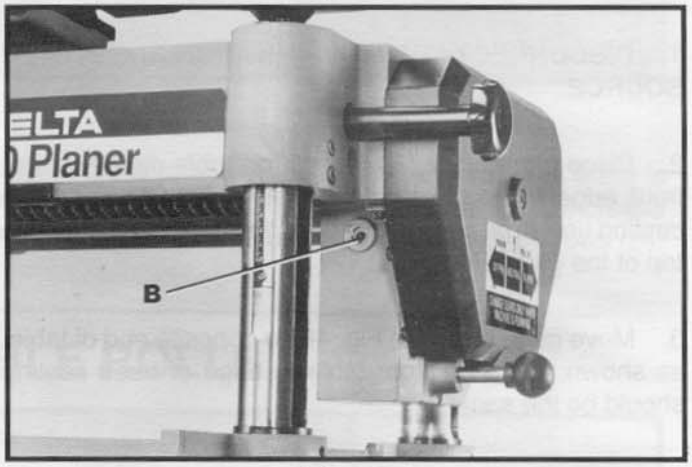

Fig. 50

The four raising screws, two of which are shown at (C) Fig. 51, should be lubricated as required using a common grease.

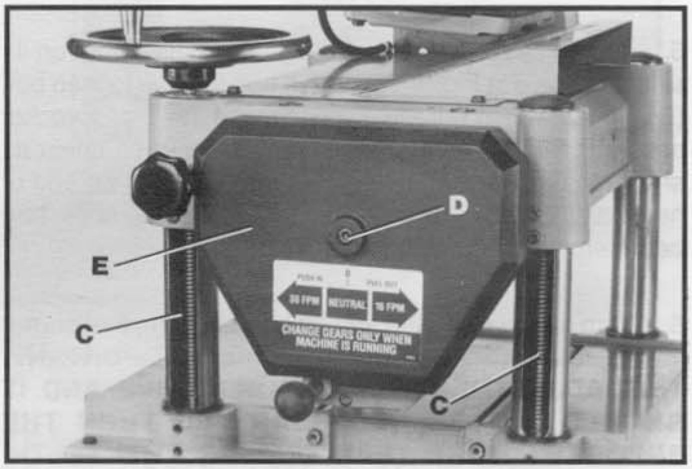

Fig. 51

Periodically remove screw (D) Fig. 51, and side cover (E). Thoroughly clean chains and sprockets (F) Fig. 52, and lubricate using a light machine oil. Replace side cover.

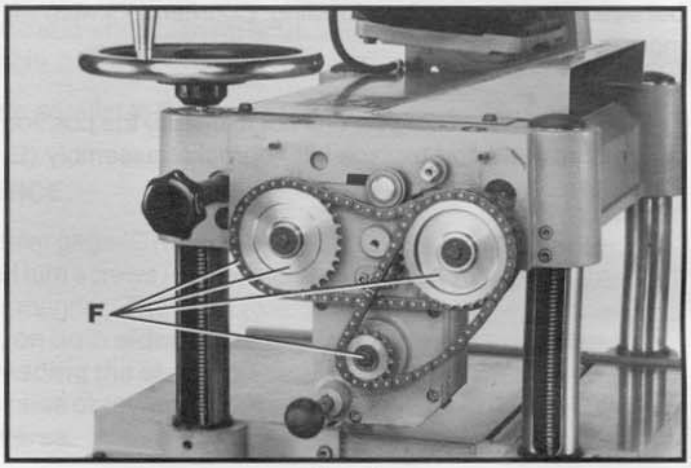

Fig. 52

ACCESSORY 22-678 SHAVING HOOD

Available as an accessory for your 15" Planer is the 22-678 Shaving Hood (A) Fig. 53, which is assembled to the rear of the machine, as shown, using two screws and washers. When the shaving hood (A) is connected to a dust collection system, it provides an efficient means of maintaining a clean and safe work area.

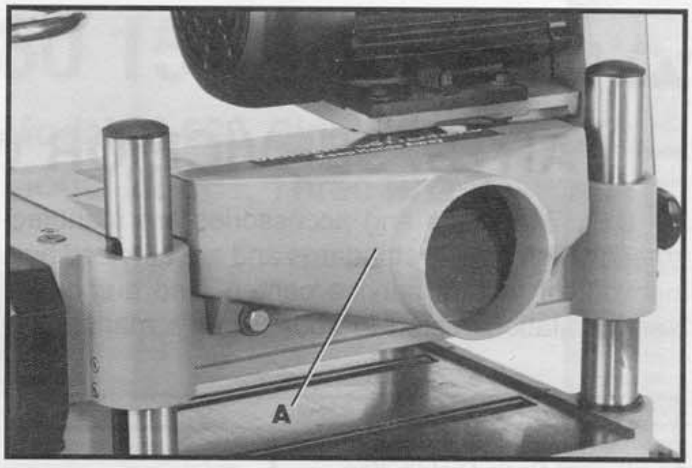

Fig. 53

IMPORTANT: When using the shaving hood with your machine, remove the top cover of the Planer and remove the three screws (B) Fig. 54, and chip deflector (C). The chip deflector (C) is not needed when using a dust collection system with your machine. Replace the top cover of the planer before operation.

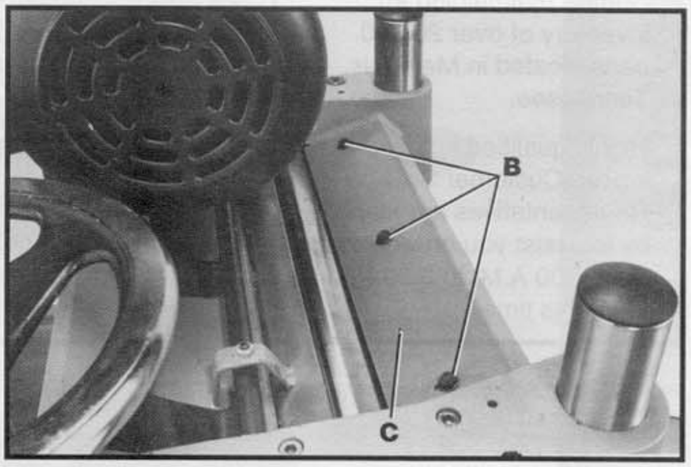

Fig. 54

DELTA

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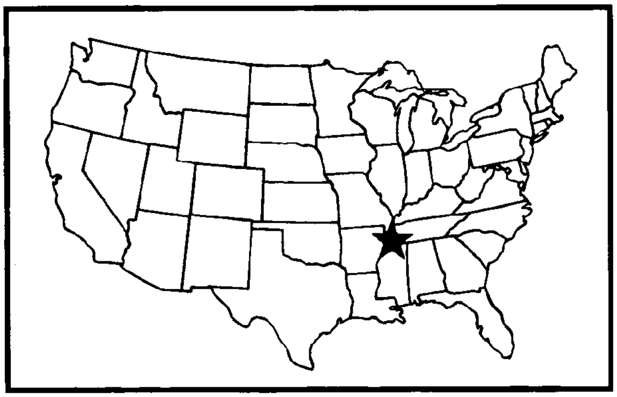

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